IN THE CLAIMS:

1. (Currently Amended) A method for canceling feedback in ~~an acoustic system~~ a hearing aid comprising a microphone, a signal path, a speaker, means for detecting presence of feedback between the speaker and the microphone and filter means for compensating at least partly a possible feedback signal, the method comprising:

- providing a LMS algorithm for generating filter coefficients;

- where the LMS algorithm operates with a predetermined essentially level independent adaptation speed when feedback is not present, this representing a first mode,

- where the LMS algorithm operates a level dependent adaptation speed when feedback is present, this representing a second mode;

- where the means for detecting the presence of feedback is used to control the adaptation mode selection of the LMS algorithm, and

- where the feedback detection means comprises bandwidth detection means for determining the presence of a feedback signal.

2. (Original) A method according to claim 1, where the update rate for the LMS algorithm is determined by the long-term average denominator in the LMS update algorithm in the second mode.

3. (Currently Amended) A method according to claim 1 ~~or 2~~, comprising using a highpass filter to prevent low-frequency signals from entering the

LMS algorithm; where an additional feedback cancellation filter and a noise generator is used for providing low-frequency input for the LMS algorithm.

4. (Original) A method according to claim 1, where the stability of the signal determined as a feedback signal is analyzed.

5. (Original) A method according to claim 4, where the feedback analyzing comprises holding flag values from a number of succeeding time frames and comparing of these.

6. (Original) A hearing aid comprising:

- a microphone;
- a signal path;
- a amplifier;
- a speaker;
- means for detecting feedback between the speaker and the microphone;
- filter means for compensating at least partly a possible feedback signal;
- memory means including a LMS algorithm;

- means for shifting the adaptation mode of the LMS algorithm when feedback is detected, said means being controlled by the means for detecting feedback and

- means for updating the LMS algorithm by the long term denominator in the LMS algorithm;

- where the feedback detection means comprises bandwidth detection means for determining the presence of a feedback signal.

7. A hearing aid according to claim 6, comprising stability detecting means for the feedback signal.